IT IS CLAIMED:

1. A method of operating a memory system having a plurality of memory cells organized into a plurality of blocks that individually contain the smallest group of memory cells that are simultaneously erasable by addressing individual blocks, said blocks being individually programmable in units of an integer number of a plurality of pages of a given amount of data per page, comprising programming sectors of data individually containing less than said given amount of data across boundaries of said pages within individual blocks, wherein more sectors of data are programmed into a block than a number of pages in the block.

2. The method of claim 1, wherein said sectors of data individually contain all of user data, data of attributes of the user data and data of attributes of the block in which said sectors of data are programmed.

3. The method of claim 1, wherein said sectors of data individually contain both user data and data of attributes of the user data, with data of attributes of the block in which said sectors of data are programmed being stored as part of different data sectors.

4. The method of claim 1, wherein said sectors of data individually contain user data, with data of attributes of the user data and data of attributes of the block in which the individual sectors of data are being programmed being stored as part of different data sectors.

5. The method of either one of claims 3 or 4, wherein said different data sectors are stored in different blocks than said sectors of data to which the data of attributes pertains.

6. The method of any one of claims 1-4, additionally comprising operating the memory cells with a plurality of effective threshold levels in excess of two that correspond to a plurality of alterable states of the individual cells in excess of two, whereby storage elements of the cells individually store more than one bit of data.

7. A method of operating a memory system having a plurality of memory cells organized into a plurality of blocks that individually contain the smallest group of memory cells that are simultaneously erasable by addressing individual blocks, said blocks being individually programmable in units of one or more integer numbers of a pages of a given amount of data per page, comprising programming sectors of data individually containing more than said given amount of data across boundaries of said pages.

8. The method of claim 7, wherein said sectors of data individually contain all of user data, data of attributes of the user data and data of attributes of the block in which said sectors of data are programmed.

9. The method of claim 7, wherein said sectors of data individually contain both user data and data of attributes of the user data, with data of attributes of the block in which said sectors of data are programmed being stored as part of different data sectors.

10. The method of claim 7, wherein said sectors of data individually contain user data, with data of attributes of the user data and data of attributes of the block in which the individual sectors of data are being programmed being stored as part of different data sectors.

11. The method of either one of claims 9 or 10, wherein said different data sectors are stored in different blocks than said sectors of data to which the data of attributes pertains.

12. The method of any one of claims 7-10, wherein said blocks individually include only one page.

13. The method of any one of claims 7-10, wherein said blocks individually include a plurality of pages.

14. The method of any one of claims 7-10, additionally comprising operating the memory cells with a plurality of effective threshold levels in excess of two that correspond to a plurality of alterable states of the individual cells in excess of two, whereby storage elements of the cells individually store more than one bit of data.

15. In a non-volatile memory system having memory cells organized into a plurality of blocks that are individually addressable for simultaneously erasing the memory cells within a block, wherein the blocks individually store a plurality of pages of data, the pages being designated to individually store at least one sector of user data and associated overhead data including at least one attribute of the associated user data stored in the page and at least one physical attribute of the block in which the page is stored, an improved method of operating the memory system, comprising:

storing user data in portions of the pages designated to store overhead data in a manner that at least one additional sector of user data is stored in individual ones of the blocks without the storage of overhead data in said individual user data blocks, and

storing said overhead data for a plurality of the user data blocks as corresponding individual records in blocks distinct from those storing the user data.

16. The method according to claim 15, wherein storing said overhead data includes storing overhead data records that individually include a field of attributes of a corresponding one of the user data blocks and a field of user data attributes for individual ones of the user data sectors stored in the corresponding user data block.

17. The method according to claim 16, wherein storing said overhead data includes storing both physical and logical attributes in the field of block attributes.

18. The method according to claim 16, wherein storing said overhead data includes storing within individual ones of the overhead data records logical and physical addresses of the corresponding block.

19. The method according to claim 16, wherein the field of user data attributes includes an error correction code calculated from the user data stored in a corresponding one of the pages in the corresponding block.

20. The method according to claim 16, wherein the field of physical block attributes includes a count of a number of times that the corresponding block has been erased.

21. A method of operating a memory system having a plurality of memory cells organized into a plurality of blocks that are individually addressable for simultaneously erasing the memory cells within a block, comprising:

storing multiple sectors of user data within individual ones of a first group of blocks, and

storing a plurality of records in individual ones of a second group of blocks different from the first group of blocks, wherein said plurality of records individually include overhead information of attributes of a corresponding one of the first group of blocks and the user data stored therein.

22. The method of claim 21, wherein storing records including overhead information of attributes includes storing logical and physical addresses of the corresponding user data block.

23. The method of claim 22, additionally comprising forming in volatile memory a temporary table of the logical and physical addresses of the corresponding user data blocks by reading the corresponding overhead records.

24. The method of claim 21, wherein storing records including overhead information of attributes includes storing an error correction code that has been calculated from the user data stored in a corresponding one of the first set of blocks.

25. The method of claim 21, wherein storing records including overhead information of attributes includes storing a count of a number of times that the corresponding one of the first set of blocks has been programmed.

26. The method of any one of claims 21-25, wherein said individual ones of the first group of blocks do not contain any of said overhead information.